



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,016	09/11/2003	Tobin Allen King	ZG144US	1858
24011	7590	02/07/2005	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			CRENSHAW, MARVIN P	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,016

Applicant(s)

KING ET AL.

Examiner

Marvin P. Crenshaw

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed on 01/12/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4 - 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4 - 9 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/436508.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McIntyre et al. in view of Fong et al.

McIntyre et al. teaches a cartridge for use with a digital printing device (Fig. 1), the cartridge including a first casing portion (Fig. 1) for housing print media (30), a second casing portion (Fig. 2) for housing a supply of ink (38), the second casing portion being segregated into distinct chambers for storing a supply of different colored inks and each ink storage chamber having a corresponding ink outlet closed with a pierceable seal (See col. 4, lines 15 – 25).

However, McIntyre et al. does not teach wherein each of the storage chambers is at least partially defined by respective collapsible membranes such that each of the storage chambers have ink storage volumes that reduce with ink usage.

Fong et al. teaches having a storage chamber is at least partially defined by respective collapsible membrane such that the storage chamber have ink storage volumes that reduce with ink usage.

With respect to claim 2, McIntyre et al. teaches a cartridge device wherein each ink outlet is in the form of a nozzle (See col. 4, lines 15 – 25) adapted to connect with a corresponding ink connection means provided on the printed device with which the cartridge is to be used.

With respect to claim 4, McIntyre et al. cartridge wherein the casing includes a first print media storage molding (30), a second ink storage molding (Fig. 2) and an intermediate molding (Fig. 2, part in between the ink storage and media storage) that serves to complete and enclose said print media and ink storage moldings, whilst simultaneously interconnecting the two.

With respect to claim 9, McIntyre et al. teaches a cartridge which includes a shielding means (Fig. 8, angled portion to the left on the ink cell and just below and to the right of the feed roller) arranged in said first portion of the casing adjacent the exit opening for assisting in the supply of print media to said printing device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McIntyre et al. in view of Fong et al. and further in view of Lee.

McIntyre et al. as modified by Fong et al. teach all that is claimed in the above rejection of claims 1, 2, 4 and 9, except the cartridge including a print media exit opening and a transport assembly arranged partially within the casing. Lee teaches a cartridge (Fig. 3B) wherein the cartridge includes a print media exit (9) opening arranged in said first portion of the casing; and a transport assembly (6) arranged at least partially within said first portion of the casing and being disposed upon operation to pick up and drive a sheet of said print media through said exit opening, a cartridge (Fig. 3B) wherein said transport assembly includes a drive shaft, pick up rollers rigidly connected with said drive shaft and a drive gear, said shaft and roller being captively supported within said first portion of the cartridge and the drive gear is adapted to engage a powered corresponding gear provided on the printing device with which the cartridge is to be used.

It would have been obvious to further modify the cartridge of McIntyre et al. to have a cartridge including a print media exit opening and a transport assembly arranged partially within the casing as taught by Lee to have an efficient means for transporting the paper medium from the tray to the printing area.

With respect applicant's claim of having a drive shaft and pick up rollers connected to the drive shaft and a drive gear and the drive gear engages with a powered gear provided on the printing device would be obvious to one of ordinary skill in the art that Lee cartridge would have the structure to allow the paper to be transferred from the tray to the printing area.

Response to Arguments

Applicant's arguments filed August 09, 2004 have been fully considered but they are not persuasive. Specifically, McIntyre et al. teaches the claimed invention of having a cartridge for use in a digital printing device. The "pierceable reservoir seal" of McIntyre et al. is considered by definition as a collapsible membrane.

Fong et al. has been added to teach having a collapsible membrane in which the storage chamber having ink storage volumes reduce with ink usage.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marvin P. Crenshaw whose telephone number is (571) 272-2158. The examiner can normally be reached on Monday - Thursday 7:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

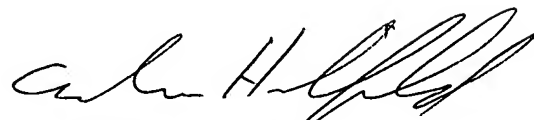
Art Unit: 2854

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MPC

January 31, 2005



ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800